

2017-2018 Annual Green Tier 1 Report

**The Toro Company
200 Sime Avenue
Tomah, WI 54660**

Background:

The Toro Company – Tomah, Wisconsin facility received formal approval into the Wisconsin DNR Green Tier 1 program on June 29, 2012. The Toro Company in Tomah, WI manufactures both landscape contractor and commercial turf care products and service parts. The facility currently employs over 600 people at a 300,000 square foot facility.

Environmental Management System (EMS)

The Toro Company passed ISO 14000:2015 environmental review audit through LRQA (Lloyd's Register Quality Assurance, Inc.). Toro will be completing its first surveillance audit to this standard in December 2018.

Environmental Compliance:

External auditor's complete environmental compliance audits of Toro-Tomah every three years. The next scheduled compliance audit December 2020.

Environmental Targets and Objectives:

1) Improve Waste Management

- a. Continue recycling for aluminum cans and plastics. Continue to reduce material being sent to landfill from .509#/standard hour to .494#/standard hour. Owner: Tom Nordwig. Target Date: 10/31/18

F17 Actual landfill rate: .628#/Std. Hour (274,840 #/437,343 Hrs.)

Results of recycling effort:

Year	Wood	Cardboard	Metal	Landfill
F18 (YTD)	1,431,000	666,000	473,420	200,980
F17 (Actual)	1,778,000	711,000	643,400	274,840
F16 (Actual)	1,724,000	632,000	550,640	359,080
F15 (Actual)	1,659,000	533,450	501,180	204,680

F14 (Actual)	1,744,000	460,900	632,000	220,260
F13 (Actual)	1,664,000	704,700	498,160	172,500
F12 (Actual)	1,728,000	939,000	405,160	230,000
F11 (Actual)	1,552,000	783,000	600,460	368,000
F10 (Actual)	1,216,000	665,000	457,520	494,500

- b. Visit, tour, and/or audit one transporter and/or disposal facility of hazardous waste annually. Owner: Tom Nordwig. Target Completion Date: 11/3/17
 - 1. Reviewed CRI Audit documentation.
- c. Change wood recycling supplier. Current wood recycling company does not provide any form of payment to Toro for wood material. Changed recycling company that is a charitable organization. Also, organization provides Toro will charitable tax write off based upon volume of wood supplied to organization. This organization will also provide Toro with scholarship incentives.
- d. Investigate and evaluate alternate wastewater chemistry to reduce phosphorus levels in wastewater along with reducing waste sludge hauled off-site. Target Completion Date: 10/1/17
 - Six Sigma study complete.
 - a. Changes to wastewater treatment chemical precipitation process implemented.
 - b. Phosphorus effluent averaging 8 ppm.
 - Replaced use of phosphoric acid with proprietary citric acid.
 - Proprietary chemistry was not as effective as calcium chloride.
 - Returned to using calcium chloride
 - Continuing to use citric acid for cleaning filter press.
 - Maintaining phosphorus levels between 10-25 ppm.
- e. Investigate potential elimination of packaging materials on reels and kits by installing on units prior to shipping to distributor. This would result in elimination of packaging material cost, distributor assembly time, and packaging material disposal fees. Potential cost reduction: Estimated Savings: Greater than \$100.00 per unit.

2) Improve Chemical Management

- a. Investigate paint finishing options to replace current technologies with equipment, chemicals, and paints posing a lesser concern onto the environment. Target Completion Date: 10/31/16
- b. Determine feasibility of options meeting Toro's coatings criteria.
 - 1. Evaluating (2) color Ecoat option and Ecoat prime + powder topcoat options to replace current technology.

- c. Approval to implement process of Ecoat prime with powder topcoat.
- d. This process will reduce plant emissions with the elimination of one liquid spray painting line.
- e. Ecoat Prime: <1 # VOC and zero HAPS.
- f. Powder Topcoat: Zero VOC and HAPS
- g. Completed equipment specification for equipment suppliers.
- h. Equipment Supplier Awarded: 11/13/2017
- i. Estimated project final approval 1/1/18 (Including Building)
- j. Estimated Project Completion: September 2019

3) **Improve Environmental Management**

- a. Assure all SDSs are converted to electronic versions using SDS Online and continue reduction of inventory for unused items stored in the paint vault and departments. Owner: Kelsey Foss and Tom Nordwig. Target Completion Date: Ongoing
- b. Investigate need to modify current regulatory permitting with inclusion of new product lines and capital equipment purchases. Target Date: Ongoing
 - 1. Initiate review for new air construction permit with changes to Tractor paint finishing system in the plant - Complete
 - 2. Wisconsin DNR is currently rewriting our existing air permit to include changes. Renewal Approved: 5/17
 - 3. Air permit renewal included elimination of P84 Engine Run Up. Product testing has been changed from Stationary Source to Mobile Source. 5/17
 - 4. Initiate review requirement for construction permit to include implementation of new paint finishing system. 4/1/18.
- c. Provide refresher training in the following areas; Target Completion Date: Ongoing
 - 1. RCRA – Associates involved with handling hazardous waste.
 - 2. DOT Hazardous Waste – Associates involved with transporting hazardous waste.
 - 3. Universal Waste – General Plant.
 - 4. Drums / Totes: Storage and Disposal – General Plant
 - 5. Spills and clean up – General Plant
 - 6. Solid waste recycling – General Plant
 - 7. Environmental Aspect Training – General Plant

All training has been completed within required time-lines.
- d. Update documentation to meet ISO14001-2015 revision changes. Completion Date: March 2018
- e. Update permitting required for new building addition and paint system requirements including;
 - 1. SWPPP – Building Addition
 - 2. Air Construction Permit – Paint System
 - 3. Pretreatment Permit – Paint System
 - 4. SWPPP – Plant Operations

5. Plant Air Operations Permit – Paint System

Executive Summary:

From advanced work in electric, biofuel, and propane technologies to our many water-saving irrigation products, we are committed to protecting the world's critical resources and delivering commercially viable solutions that yield environmental, performance, and productivity innovation to our customers.

Equally important are our ongoing efforts to create a leaner, more efficient operational footprint. Across all worldwide manufacturing facilities, we recycle steel, aluminum, plastics and cardboard packaging. To reduce wood packaging waste, we ship many of our professional products as drive-on products and receive many of our product components from suppliers in reusable packaging. We recycle water and reuse paint within our paint systems. We also continue to invest in more advanced technologies that allow us to reduce our energy usage and improve productivity.

Environmental Performance:

1. Toro has passed ISO 14001-2015 review to new standard 6/29/2018. Next surveillance audit scheduled for December 2018.
2. Tomah Toro Manufacturing Plant has not received any notices of non-compliance from any regulatory agency in the last year.
 - a. 2017 Tier II submission completed.
 - b. 2017 Hazardous Waste Inventory completed.
 - c. 2017 Air Emission Inventory (TRI) completed
 - d. 2017 Semi-Annual Pretreatment Sampling completed
 - e. Wastewater sampling equipment inspection complete April 2017.